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(54) **SOLAR PANEL LIGHT
INDICATOR/DECORATIVE SYSTEM**

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H02N 6/00 (2006.01)
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(52) **U.S. Cl.** **136/251**

(58) **Field of Classification Search** 136/251
See application file for complete search history.

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(57) **ABSTRACT**

A solar power generation system containing a plurality of roofing tiles, each of which containing a housing that encloses photovoltaic panels, solar panel control systems and light sources (light source). The housing and solar panel control system, in addition, may also contain modules and assemblies such as solar panel processing circuitry, communication and power interfaces, heater assembly, electrical rotational assembly, self cleaning assembly, and so forth. For optimal functioning, it is essential that all these modules incorporated within the housing function properly. The light sources are communicatively coupled to the solar panel processing circuitry and a central control unit; and are operable to produce a visible output. The light sources identify a solar panel among plurality of solar panels of the solar power generation system, and display a visible light that indicates operating condition of that solar panel. The visible light may indicate, for instance, problems related to the maintenance, cleaning, solar panel positional adjustment, and heater assembly. The visible light may also indicate operational conditions of a plurality of solar panels, within a block of roofing tiles; where rest of the roofing tiles are incorporated with minimum number of light sources, to minimize the cost. In addition, the visible output may display colorful holiday lighting and advertisements, especially at the roofing edges.

31 Claims, 9 Drawing Sheets

